

2SA1110

Silicon PNP Epitaxial Planar Type

AF Power Amplifier

Complementary Pair with 2SC2590

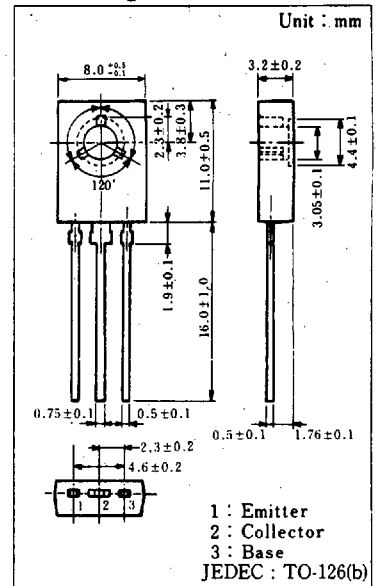
■ Features

- Good linearity of DC current gain (h_{FE})
- High transition frequency (f_T)
- 40~60W output driver in complementary pair with 2SC2590

■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	-120	V
Collector-emitter voltage	V_{CEO}	-120	V
Emitter-base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-1	A
Collector current	I_C	-0.5	A
Collector power dissipation	P_C	1.2	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

■ Package Dimensions



■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector-emitter voltage	V_{CEO}	$I_C = -100\mu\text{A}$, $I_B = 0$	-120			V
Emitter-base voltage	V_{EBO}	$I_E = -10\mu\text{A}$, $I_C = 0$	-5			V
DC current gain	h_{FE1}^*	$V_{CE} = -10\text{V}$, $I_C = -150\text{mA}$	65		330	
	h_{FE2}	$V_{CE} = -5\text{V}$, $I_C = -500\text{mA}$	50	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -300\text{mA}$, $I_B = -30\text{mA}$			-1.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -300\text{mA}$, $I_B = -30\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CB} = -10\text{V}$, $I_E = 50\text{mA}$, $f = 200\text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		20	30	pF

* h_{FE1} Classifications

Class	P	Q	R	S
h_{FE1}	65 ~ 110	90 ~ 155	130 ~ 220	185 ~ 330

